@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0908631B

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Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	09/21/09
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0908631B

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	**BILL TO:**	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	**P.O. #**	16512
FAX:	781-247-4305	**PROJECT #**	16512
DATE RECEIVED:	08/28/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/17/2009		

FRACTION #	NAME	TEST
17A	101186	ATL Applications
18A	101187	ATL Applications
19A	101254	ATL Applications
20A	101255	ATL Applications
21A	101256	ATL Applications
21AA	101256 Lab Duplicate	ATL Applications
22A	101257	ATL Applications
23A	101258	ATL Applications
24A	101259	ATL Applications
25A	101260	ATL Applications
26A	101587	ATL Applications
27A	101588	ATL Applications
28A(cancelled)	101589	ATL Applications
29A	101590	ATL Applications
30A	101591	ATL Applications
31A	101592	ATL Applications
32A	101323	ATL Applications

Continued on next page

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Laboratory Services Since 1989

WORK ORDER #: 0908631B

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	**BILL TO:**	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	**P.O. #**	16512
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DATE RECEIVED:	08/28/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/17/2009		

FRACTION #	NAME	TEST
33A	Method Blank	ATL Applications
33B	Method Blank	ATL Applications
34A	CCV	ATL Applications

CERTIFIED BY: Linda S. Frumarn

Laboratory Director

DATE: 09/17/09

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Air Toxics LTD.
Laboratory Services Since 1989

LABORATORY NARRATIVE
Nitrogen Dioxide by Radiello 166
Environmental Health & Engineering, Inc.
Workorder# 0908631B

Sixteen Radiello 166 (NO2) samples were received on August 28, 2009. The procedure involves extraction of nitrite from reaction of NO2 with triethanolamine. Absorbance of nitrite is then measured at 537 nm using a spectrophotometer. Results are reported in uG and uG/m3.

Sampling rate of 141 mL/min was provided by the manufacturer.

Receiving Notes

The number of samples received did not match the information on the Chain of Custody (COC). Sample 101589 was not received at Air Toxics Ltd. despite notation on the COC.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 21600 minutes was used for the QC samples.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Sample Results and Raw Data

AIR TOXICS LTD.

ATL Application # 61 for RAD 166 (Nitrogen Dioxide)

Spectrophotometer

Field Sample I.D.	Lab Sample I.D.	Collection Date	Analysis Date	Dilution Factor	Reporting. Limit (ug)	Reporting. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
101186	908631B-17A	8/25/2009	9/1/2009	1.00	0.32	0.20	9.2	5.7
101187	908631B-18A	NA	9/1/2009	1.00	0.32	0.20	0.52	0.32
101254	908631B-19A	8/25/2009	9/1/2009	1.00	0.32	0.22	5.5	3.6
101255	908631B-20A	8/25/2009	9/1/2009	1.00	0.32	0.22	5.2	3.4
101256	908631B-21A	8/25/2009	9/1/2009	1.00	0.32	0.22	11	7.2
101256 Lab Duplicate	908631B-21AA	8/25/2009	9/1/2009	1.00	0.32	0.22	11	7.1
101257	908631B-22A	8/25/2009	9/1/2009	1.00	0.32	0.22	7.3	4.8
101258	908631B-23A	8/25/2009	9/1/2009	1.00	0.32	0.22	6.2	4.1
101259	908631B-24A	NA	9/1/2009	1.00	0.32	0.20	0.40	0.25
101260	908631B-25A	NA	9/1/2009	1.00	0.32	0.20	ND	ND
101587	908631B-26A	8/27/2009	9/1/2009	1.00	0.32	0.20	2.2	1.3
101588	908631B-27A	8/27/2009	9/1/2009	1.00	0.32	0.20	2.2	1.4
101590	908631B-29A	8/27/2009	9/1/2009	1.00	0.32	0.20	2.9	1.8
101591	908631B-30A	8/27/2009	9/1/2009	1.00	0.32	0.20	2.6	1.6
101592	908631B-31A	NA	9/1/2009	1.00	0.32	0.20	ND	ND
101323	908631B-32A	8/25/2009	9/1/2009	1.00	0.32	0.23	11	7.8
Method Blank	908631B-33A	NA	9/1/2009	1.00	0.32	0.20	0.48	0.30
Method Blank	908631B-33B	NA	9/1/2009	1.00	0.32	0.20	0.52	0.32
							%Rec	
CCV	908631B-34A	NA	9/1/2009	1.00	0.32	0.20	101	

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 21600 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Dioxide Radiello Calculation Worksheet

Workorder #:	908631B	
Sampling Rate (ng/(ppb*min))	0.141	Typically 0.96 for NO2
Sampling T (deg C)	25	Typically 25
Volume (mL)	5	Typically 5 for NO2
Date of Analysis:	9/1/2009	

1000ng/1ug

(Abs-Y-int)xDF	Conc(ug)x5 (mL)	Conc (ug) x 1000	ppbx mw
Slope	0.5mL	Q x Duration	24.45

Corrected Q 0.141 es into account temp

LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Conc (ug) (for 0.5mL Aliquot)	Conc (ug) in full 5 mL of sample	Conc (ppb)	Conc (ug/m3)
17A	101186	8/25/2009	0.245	21600	1.00	0.917434673	9.174346731	3.012	5.667
18A	101187	NA	0.028	21600	1.00	0.051765098	0.517650982	0.170	0.320
19A	101254	8/25/2009	0.153	20160	1.00	0.550422687	5.504226874	1.936	3.643
20A	101255	8/25/2009	0.145	20160	1.00	0.518508602	5.185086017	1.824	3.432
21A	101256	8/25/2009	0.286	20160	1.00	1.080994362	10.80994362	3.803	7.155
21AA	101256 Lab Duplicate	8/25/2009	0.284	20160	1.00	1.073015841	10.73015841	3.775	7.102
22A	101257	8/25/2009	0.198	20160	1.00	0.72993942	7.299394195	2.568	4.831
23A	101258	8/25/2009	0.170	20160	1.00	0.61824012	6.182401195	2.175	4.092
24A	101259	NA	0.025	21600	1.00	0.039797316	0.397973161	0.131	0.246
25A	101260	NA	0.021	21600	1.00	0.023840273	0.238402732	0.078	0.147
26A	101587	8/27/2009	0.069	21600	1.00	0.215324787	2.153247875	0.707	1.330
27A	101588	8/27/2009	0.070	21600	1.00	0.219314048	2.193140482	0.720	1.355
28A	101589	8/27/2009	NA	21600	1.00	#VALUE!	#VALUE!	#VALUE!	#VALUE!
29A	101590	8/27/2009	0.087	21600	1.00	0.28713148	2.871314803	0.943	1.774
30A	101591	8/27/2009	0.079	21600	1.00	0.255217395	2.552173946	0.838	1.577
31A	101592	NA	0.020	21600	1.00	0.019851012	0.198510125	0.065	0.123
32A	101323	8/25/2009	0.288	18720	1.00	1.088972884	10.88972884	4.126	7.762
					1.00	-0.059934202	-0.599342018	#DIV/0!	#DIV/0!
					1.00	-0.059934202	-0.599342018	#DIV/0!	#DIV/0!
					1.00	-0.059934202	-0.599342018	#DIV/0!	#DIV/0!
					1.00	-0.059934202	-0.599342018	#DIV/0!	#DIV/0!
					1.00	-0.059934202	-0.599342018	#DIV/0!	#DIV/0!
33A	Method Blank	NA	0.027	21600	1.00	0.047775837	0.477758375	0.157	0.295
33B	Method Blank	NA	0.028	21600	1.00	0.051765098	0.517650982	0.170	0.320
34A	CCV	NA	0.840	21600	1.00	3.291044798	32.91044798	10.806	20.330

QC Duration	CCV Spike Amt ug per 0.5 mL
21600	3.25

nplate Verified by HH and AW on 9/4/09

1000ng/1ug

Low PointxDF	RL(ug)x5 (mL)	RL (ug) x 1000	ppbx mw
	0.5mL	Q x Duration	24.45

Calibration Data — Calibration Date 9/1/2009 — Linear Regression

RL(ug) for 0.5 mL aliquot	RL (ug) in full 5 mL of sample	RL (ppb)	RL (ug/m3)	Result (ug)	Result (ug/m3)	%Rec	ug/ml of NO2	0.5 mL Aliquot of Cal STD ug of NO2	absorbance		
0.0325	0.325	0.1	0.201	9.174346731	5.667365917		0	0	0	Slope	0.250673012
0.0325	0.325	0.1	0.201	0.517650982	0.319773998		0.065	0.0325	0.017	Y-int	0.015023887
0.0325	0.325	0.1	0.215	5.504226874	3.643054382		0.325	0.1625	0.051	R2	0.999826518
0.0325	0.325	0.1	0.215	5.185086017	3.431826261		1.3	0.65	0.182		
0.0325	0.325	0.1	0.215	10.80994362	7.154721886		6.5	3.25	0.844		
0.0325	0.325	0.1	0.215	10.73015841	7.101914856		13	6.5	1.637		
0.0325	0.325	0.1	0.215	7.299394195	4.83121256						
0.0325	0.325	0.1	0.215	6.182401195	4.091914138						
0.0325	0.325	0.1	0.201	0.397973161	0.245844156						
0.0325	0.325	0.1	0.201	ND	ND						
0.0325	0.325	0.1	0.201	2.153247875	1.330148508						
0.0325	0.325	0.1	0.201	2.193140482	1.354791789						
0.0325	0.325	0.1	0.201	#VALUE!	#VALUE!						
0.0325	0.325	0.1	0.201	2.871314803	1.773727561						
0.0325	0.325	0.1	0.201	2.552173946	1.576581315						
0.0325	0.325	0.1	0.201	ND	ND						
0.0325	0.325	0.1	0.232	10.88972884	7.761954217						
0.0325	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.0325	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.0325	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.0325	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.0325	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.0325	0.325	0.1	0.201	0.477758375	0.295130717						
0.0325	0.325	0.1	0.201	0.517650982	0.319773998	%Rec					
0.0325	0.325	0.1	0.201	32.91044798	20.33011795	101					

QC Results and Raw Data

Spectrophotometer Logbook @Air Toxics Ltd. Log Book #: 1564

Work Order: 0908631B

Date: 9/1/09 **Method:** Rad 106

Analyst: A. Toyama **Wavelength:** 537 nm

Prep. Notes:

Standard ID	Concentration	ABS
1858-26 ~~0.1~~ 0.065	0.065 ~~0.1~~ ug/mL	0.017
~~0.5~~ 0.325	0.325 ~~0.5~~	0.051
~~2.0~~ 1.3	1.3 ~~2.0~~	0.182
~~10~~ 6.5	6.5 ~~10~~	0.844
~~20~~ 13	13 ~~20~~	1.637
9/3/09 Act	9/3/09 Act	

r = 0.9998 9/10/09

m = ~~0.0815~~ ~~0.1253~~ 0.05067

b = ~~0.0156~~ 0.0150

9/3/09 Act

Fraction	Dilution	ABS	Sample ID	Sample Volume
17A	1.00	0.245	101186	5.0 mL
18A	↓	0.028	187	↓
19A	↓	0.153	254	↓
20A	↓	0.145	255	↓
21A	↓	0.286	256	↓
22A	↓	0.198	257	↓
23A	↓	0.170	258	↓
24A	↓	0.025	259	↓
25A	↓	0.021	260	↓
26A	↓	0.069	587	↓
27A	↓	0.070	588	↓
~~28A~~ 9/1/09 Act	↓	9/1/09 Act		↓
29A	↓	0.087	101590	↓
30A	↓	0.079	591	↓
31A	↓	0.020	592	↓

Notes: Blank Cartridges: Lot 09150
CCV/LCS prepared at ~~10~~ 6.5 ug/mL 9/8/09 Act

 Signed: [signature] Date: 9/1/09

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

cont. from page 41

Work Order: 0908631B

Date: _____ **Method:** _____

Analyst: _____ **Wavelength:** _____

Prep. Notes:

Standard ID	Concentration	ABS

r = _____

m = _____

b = _____

9/1/09 ACT

Fraction	Dilution	ABS	Sample ID	Sample Volume
3EA	1.00	0.288	101323	5.0 mL
21AA	↓	0.284	↓ 250	↓
BLK		0.027	NA	
BLK		0.028	↓	
CCV/LCS	↓	0.840		

9/1/09 ACT

Notes: _____

Signed: _____ Date: 9/1/09

Spectrophotometer Standard Preparation Log @Air Toxics Ltd. Log Book #: 1858

Standard ID: 1858-26
Project: Calibration Solution Rad 1666
Analyst: A. Toyama
Preparation Date: 9/1/09
Expiration Date: 9/1/09

Solvent: DI H_2O
Solvent Lot #: NA

Procedure/Comments: Dissolve 5mg Sodium Nitrite, 97% (Located ERLD) in 250 mL DI H_2O to yield ~~20 mg/L or 20 ug/mL~~ 9/3/09 ACT From this solution, dilute to make 13 mg/L or 13 ug/mL

6.5 ug/mL 1.3 ug/mL 0.325 ug/mL 0.065 ug/mL

~~10 ug/mL, 2.0 ug/mL, 0.5 ug/mL and 0.1 ug/mL~~ 9/3/09 ACT

(~~375:600~~ ~~300:600~~ ~~150:650~~ ~~125:625~~ 9/1/09 ACT 150:600 100:500) all in mL from conc. just m

To each of these calibration levels, transfer 0.5mL to vial and add 5 mL of sulphanilamide, cap tightly, stir and wait 5 minutes. Then add 1 mL of NEDA solution, stir and wait 10 minutes. Measure absorbance at 537 nm.

8/31/09
AET

AET 8/31/09 Reviewed 9/2/09

 Signed Date Reviewed Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

180 Blue Ravine Road, Suite B
Folsom, CA 95630

Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Taeko Minegishi
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 0908631B
# of pages (Including Cover): 4

9/21/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy. Corrections can be faxed to **Ausha Scott at 916-985-1020.**
ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

The following discrepancies have been observed:

Sample 101589 was not received at ATL despite notation on the COC. Unless otherwise notified ATL will proceed with the analysis of the samples that were received.

Your prompt response is appreciated.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 27 Aug 09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

0908631

TO: Air Toxics

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	START	OTHER: Time/Date/Vol. STOP
17A	101186	Air Passive	NO_2, SO_2, HF Analysis	8/10/09	8/25/09
18A	101187				⌀
19A	101254			8/11/09	8/23/09
20A	101255				
21A	101256				
22A	101257				
23A	101258				
24A	101259				⌀
25A	101260				⌀
26A	101587			8/12/09	8/27/09
27A	101588				
28A	101589				
29A	101590				
30A	101591				
31A	101592			8/12/09	⌀
32A	101323			8/12/09	8/25/09

Special Instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES**

☒ Electronic transfer - datacoordinator@ehsinc.com

☒ Additional report recipient mtrujala@ehsinc.com

Fed ex 8704 2333 1854

CUSTODY SEAL INTACT? Y N NONE TEMP 6°C

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 8/27/09

Received by: _____ 0850 of (company name) A+L Date: 8/28/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 0908631B

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Sales Rep: TL

Date Promised: 09/09/09 11:59 pm
Date Completed: 9/17/09
Date Received: 8/28/09
PO#: 16512
Project#: 16512

Total $: $ 675.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
17A	101186	ATL Applications	8/25/2009	$40.00
18A	101187	ATL Applications	NA	$40.00
19A	101254	ATL Applications	8/25/2009	$40.00
20A	101255	ATL Applications	8/25/2009	$40.00
21A	101256	ATL Applications	8/25/2009	$40.00
21AA	101256 Lab Duplicate	ATL Applications	8/25/2009	$0.00
22A	101257	ATL Applications	8/25/2009	$40.00
23A	101258	ATL Applications	8/25/2009	$40.00
24A	101259	ATL Applications	NA	$40.00
25A	101260	ATL Applications	NA	$40.00
26A	101587	ATL Applications	8/27/2009	$40.00
27A	101588	ATL Applications	8/27/2009	$40.00
28A(cancelled	101589	ATL Applications	8/27/2009	$0.00
29A	101590	ATL Applications	8/27/2009	$40.00
30A	101591	ATL Applications	8/27/2009	$40.00
31A	101592	ATL Applications	NA	$40.00
32A	101323	ATL Applications	8/25/2009	$40.00
33A	Method Blank	ATL Applications	NA	$0.00
33B	Method Blank	ATL Applications	NA	$0.00
34A	CCV	ATL Applications	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

SAMPLE RECEIPT SUMMARY Continued

Client

Phone

Fax

Sales Rep:

Date Promised:
Date Completed:
Date Received:
PO#:
Project#:

Total $: $ 675.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
Misc. Charges	eCVP (15) @ $5.00 each.			$75.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

Sample Discrepancy Report

Identification

Initiated By: MW **Project ID:** 13297 **PM:** AS **Date:** 8/28/2009 **Discrepancy Type:** ☐ 1. ☒ 2. ☐ 3.

Workorder(s) affected: 0908631 **Sample(s) affected:** 28A

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☒ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

Describe the Discrepancy: Sample 28A - 101589, was not received. Will currently place on hold until further notice

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:AS Person notified: B.Baker Date: 8/31/2009

☐ Waiting for Client Reply

Comments: **Client did not indicate the missing samples would be submitted. Please narrate and proceed.** _____

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☒

☐ **Additional notifications attached.**

Additional Comments:

____

Other Records

Air Toxics LTD.
Laboratory Services Since 1989

Method : ATL Application #61 NO2-Radiello 166

CAS Number	Compound	Rpt. Limit (ug)
10102-44-0	Nitrogen Dioxide	1.0

@Air Toxics Ltd.

DATA REVIEW CHECKLIST

Work Order #: 0908631B

A_1	A_2	R	T	M	Q	
☑	☐	☐	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☐	☐	☐	☐	The final report has the correct reporting list, special units, and header info.
		☐	☐	☐	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☐	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
N/A	☐	☐	☐	☐	☐	Corrective Action issued - # _____
☐	☐	☐	☐	☐	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* — ***CIRCLE (YES / NO)***

☑	☐	☐	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☐	☐	☐	☑	☐	Hold time is met for all samples
		☐	☐	☐	☐	Appropriate data qualifier flags are applied
		☐	☐	☑	☐	Manual integrations for samples and QC are properly documented
☑	☐	☐	☐		☐	Samples analyzed within the project or method specific clock
		☐	☐			Retention times have been verified
N/A	☐	☐	☐		☐	Appropriate ICAL(s) included
		☐	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☑	☐	☐	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☐	☐	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☐	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
N/A	☐	☐	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☐	☐	☐	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☐		☑		Special units for all samples in the final report are correctly calculated
		☐	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☐				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☐				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
		☐				Date MDL(s) performed per instrument(s) _____
N/A	☐	☐				Samples pressurized w/ appropriate gas (N_2 or He) ☑ Other (i.e. Tedlar bag, cartridge, sorbent)
	☐	☐				Final pressure consistent with canister size (6L vs. 1L)
	☐	☐				Verify receipt pressures End 166
	☐	☐				Verify canister ID #'s
		☐		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
			☐	☐		MDL date(s) present for all instruments utilized
		☐	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R:

Dup : 21A, ~~22A~~ 4 9/11/09

~~Encubbed~~ #28 (on hold) — Not received
4 9/11/09

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: 4 9/11/09	R:	9/17/09	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply. Rev. 02/20/09

Note (2): Management reviewer and reporting reviewer must be separate individuals.